IN THE CLAIMS

Kindly amend claims to read as follows.

- 1. (currently amended): A method of sizing paper or paper board by applying a composition (A) to at least one of,
 - i) the surface of a formed paper or paper board sheet,
- ii) a paper or paper board making cellulosic suspension prior to draining, wherein the composition (A) comprises an aqueous dispersion of polymeric particles of particle size up to 1 micron, wherein the polymeric particles comprise a water insoluble polymer matrix, comprised of ethylenically unsaturated monomer or ethylenically unsaturated monomer blend, wherein an oligomer formed from a monomer blend comprising,
 - (a) 85-95 mole % (meth)acrylamide,
 - (b) 2.5-10 mole % of an organic mercaptan or organic sulphone, and
 - (c) 2.5-10 mole % of an ethylenically unsaturated monomer comprising either a tertiary amine group or a quaternary ammonium group
- (d) 2.5-10 mole% other ethylenically unsaturated monomers is located at the surface of the polymer particles.
- 2. (previously presented): A method according to claim 1 wherein component (b) is selected from the group consisting of C_{8-20} alkyl mercaptans, C_{5-7} cycloalkyl mercaptans, aromatic mercaptans, C_{8-20} alkyl sulphones, C_{5-7} cycloalkyl mercaptans and aromatic sulphones.
- 3. (previously presented): A method according to claim 1 wherein component (c) comprises a compound of formula (1)

$$CH_2=CR-Q$$
 (1),

wherein

Q is -C(O)-Z-A-, -CH₂-N † R₁R₃CH₂CR=CH₂ X $^{-}$ or -CH₂ NR₁CH₂CR=CH₂ ,

Z is -O- or -NH-,

- A is $-C_nH_{2n}-B_{-}$,
- n is an integer from 1 to 4,
- B is $-NR_1R_2$ or $-N^{\dagger}R_1R_2R_3$ X,
- R is -H or -CH₃,
- R₁ is C₁₋₄ alkyl,
- R₂ is C₁₋₄ alkyl,
- R_3 is -H or C_{1-8} alkyl, C_{5-7} cycloalkyl or benzyl, and
- X is an anion.
- 4. (previously presented): A method according to claim 1 wherein component (c) is dimethylaminoethyl (meth)acrylate, acid addition salt or quaternary ammonium salt thereof.
- 5. (previously presented): A method according to claim 1 wherein the oligomer comprises at least 85 mole % of component (a).
- 6-7. (cancelled).
- 8. (previously presented): A method according to claim 1 wherein the oligomer further comprises component (d) which is an ethylenically unsaturated carboxylic acid or an ethylenically unsaturated carboxylic anhydride in an amount up to 10 mole %.
- 9. (original): A method according to claim 8 wherein component (d) is acrylic acid or maleic anhydride and is present in an amount between 2.5 and 5 mole %.
- 10. (previously presented): A method according to claim 1 wherein the matrix of the polymeric particles are formed from a monomer or a monomer blend comprising monomers selected from the group consisting of styrene, C_{1-12} alkyl (meth)acrylate, vinyl acetate and acrylonitrile.

- 11. (currently amended): A method according to claim 1 wherein the matrix of the polymer particles is formed from 25-75 weight % of a monomer or monomer blend selected from-any the group consisting of styrene, acrylonitrile, vinyl acetate and C_{1-2} alkyl (meth)acrylates, and 25-75 weight % of a monomer or monomer blend selected from C_{3-8} alkyl (meth)acrylates.
- 12. (currently amended): A method according to claim 1 wherein the matrix of the polymer particles is formed from 25-75 weight % styrene and 25-75 weight % 2-ethylhexyl acrylate.
- 13. (currently amended): A method according to claim 1 wherein the polymer particles are formed from a monomer blend comprising <u>a</u> cross linking monomer.
- 14. (previously presented): A method according to claim 1 wherein the polymer particles have a minimum film forming temperature of between -5 and 55°C.
- 15. (previously presented): A method according to claim 1 wherein the polymer particles have a particle size in the range 80-200nm.
- 16. (currently amended): A method according to claim 1 wherein the composition (A) comprises 0.5 to 10 weight %_polymer particles and 90 to 99.5 weight %, starch based on total dry weight of polymer particles and starch.
- 17. (currently amended): A method of improving printability of a sheet of paper by applying to the surface of the formed paper sheet a composition comprising an oligomer formed from a monomer blend comprising,
 - (a) 85-95 mole % (meth)acrylamide,
 - (b) 2.5-10 mole % of an organic mercaptan or organic sulphone,
 - (c) 2.5-10 mole % of an an ethylenically unsaturated monomer comprising either a tertiary amine group or a quaternary ammonium group, and optionally
 - (d) 2.5 0-10 mole% other ethylenically unsaturated monomers.
- 18. (previously presented): A method according to claim 17 wherein the composition comprises an aqueous dispersion of polymeric particles of particle size up to 1 micron, wherein the polymeric

particles comprise a water insoluble polymer matrix, and the oligomer is located at the surface of the polymer particles.

- 19. (previously presented): A method according to claim 17 wherein the oligomer is formed from a monomer blend comprising,
 - (a) 85-95 mole % (meth)acrylamide,
 - (b) 2.5-10 mole % of an organic mercaptan or an organic sulphone,
 - (c) 2.5-10 mole % of an ethylenically unsaturated monomer comprising either a tertiary amine group or a quaternary ammonium group, and
 - (d) 2.5-5 mole% other ethylenically unsaturated monomers.
- 20. (currently amended): A method according to claim 17 wherein the composition comprises 0.5 to 10 weight %_polymer particles and 90 to 99.5 weight %, starch based on total dry weight of polymer particles and starch.
- 21. (previously presented): A method according to claim 17 wherein the composition comprises optical brightening aids.
- 22. (currently amended): A composition comprising an aqueous dispersion of polymeric particles of particle size up to 1 micron, wherein the polymeric particles comprise a water insoluble polymer matrix, characterized in that an oligomer formed from a monomer blend comprising,
 - (a) 85-95 mole % (meth)acrylamide and
 - (b) 2.5-10 mole % of an organic mercaptan or an organic sulphone, and
 - (c) 2.5-10 mole % of an ethylenically unsaturated monomer comprising either a tertiary amine group or a quaternary ammonium group, and
- (d) 2.5 0-10 mole% other ethylenically unsaturated monomers,

is located at the surface of the polymer particles.

- 23. (original): A composition according to claim 22, wherein the polymeric particles have a particle size of 80-200 nm.
- 24. (previously presented): A composition according to claim 22, wherein component (b) is dodecyl mercaptan or dodecyl sulphone, present in an amount of 2.5-5 mole % based on total oligomer.

- 25. (previously presented): A composition according to claim 22, wherein component (c) is dimethylaminoethyl methacrylate, present in an amount of 2.5-5 mole % based on total oligomer.
- 26. (previously presented): A composition according to claim 22, wherein component (d) is acrylic acid or maleic anhydride, present in an amount of 2.5-5 mole % based on total oligomer.